(b) *Powerplant limitations.* The following information must be furnished:

(1) Limitations required by §25.1521 and §25.1522.

(2) Explanation of the limitations, when appropriate.

(3) Information necessary for marking the instruments required by §§25.1549 through 25.1553.

(c) *Weight and loading distribution.* The weight and center of gravity limits required by §§25.25 and 25.27 must be furnished in the Airplane Flight Manual. All of the following information must be presented either in the Airplane Flight Manual or in a separate weight and balance control and loading document which is incorporated by reference in the Airplane Flight Manual:

(1) The condition of the airplane and the items included in the empty weight as defined in accordance with §25.29.

(2) Loading instructions necessary to ensure loading of the airplane within the weight and center of gravity limits, and to maintain the loading within these limits in flight.

(3) If certification for more than one center of gravity range is requested, the appropriate limitations, with regard to weight and loading procedures, for each separate center of gravity range.

(d) *Flight crew.* The number and functions of the minimum flight crew determined under §25.1523 must be furnished.

(e) *Kinds of operation.* The kinds of operation approved under §25.1525 must be furnished.

(f) *Altitudes.* The altitude established under §25.1527.

(g) [Reserved]

(h) *Additional operating limitations.* The operating limitations established under §25.1533 must be furnished.

(i) *Maneuvering flight load factors.* The positive maneuvering limit load factors for which the structure is proven, described in terms of accelerations, must be furnished.

[Doc. No. 5066, 29 FR 1891, Dec. 24, 1964, as amended by Amdt. 25–38, 41 FR 55468, Dec, 20, 1976; Amdt. 25–42, 43 FR 2323, Jan. 16, 1978; Amdt. 25–46, 43 FR 50598, Oct. 30, 1978; Amdt. 25–72, 55 FR 29787, July 20, 1990]

§25.1585 Operating procedures.

(a) Information and instructions regarding the peculiarities of normal operations (including starting and warming the engines, taxiing, operation of wing flaps, landing gear, and the automatic pilot) must be furnished, together with recommended procedures for—

(1) Engine failure (including minimum speeds, trim, operation of the remaining engines, and operation of flaps);

(2) Stopping the rotation of propellers in flight;

(3) Restarting turbine engines in flight (including the effects of altitude);

(4) Fire, decompression, and similar emergencies;

(5) Ditching (including the procedures based on the requirements of §§25.801, 25.807(d), 25.1411, and 25.1415 (a) through (e));

(6) Use of ice protection equipment;

(7) Use of fuel jettisoning equipment, including any operating precautions relevant to the use of the system;

(8) Operation in turbulence for turbine powered airplanes (including recommended turbulence penetration airspeeds, flight peculiarities, and special control instructions);

(9) Restoring a deployed thrust reverser intended for ground operation only to the forward thrust position in fight or continuing fight and landing with the thrust reverser in any position except forward thrust; and

(10) Disconnecting the battery from its charging source, if compliance is shown with §25.1353 (c)(6)(ii) or (c)(6)(iii).

(b) Information identifying each operating condition in which the fuel system independence prescribed in §25.953 is necessary for safety must be furnished, together with instructions for placing the fuel system in a configuration used to show compliance with that section.

(c) The buffet onset envelopes determined under §25.251 must be furnished. The buffet onset envelopes presented may reflect the center of gravity at which the airplane is normally loaded during cruise if corrections for the effect of different center of gravity locations are furnished.

(d) Information must be furnished which indicates that when the fuel quantity indicator reads ''zero'' in level flight, any fuel remaining in the fuel tank cannot be used safely in flight.

(e) Information on the total quantity of usable fuel for each fuel tank must be furnished.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25–11, 32 FR 6913, May 5, 1967; Amdt. 25–23, 35 FR 5680, Apr. 8, 1970; Amdt. 25–40, 42 FR 15044, Mar. 17, 1977; Amdt. 25–42, 43 FR 2323, Jan 16, 1978; Amdt. 25–46, 43 FR 50598, Oct. 30, 1978]

§ 25.1587 Performance information.

(a) Each Airplane Flight Manual must contain information to permit conversion of the indicated temperature to free air temperature if other than a free air temperature indicator is used to comply with the requirements of § 25.1303(a)(1).

(b) Each Airplane Flight Manual must contain the performance information computed under the applicable provisions of this part for the weights, altitudes, temperatures, wind components, and runway gradients, as applicable, within the operational limits of the airplane, and must contain the following:

(1) The conditions under which the performance information was obtained, including the speeds associated with the performance information.

(2) V_S determined in accordance with § 25.103.

(3) The following performance information (determined by extrapolation and computed for the range of weights between the maximum landing and maximum takeoff weights):

(i) Climb in the landing configuration.

(ii) Climb in the approach configuration.

(iii) Landing distance.

(4) Procedures established under § 25.101 (f), (g), and (h) that are related to the limitations and information required by § 25.1533 and by this paragraph. These procedures must be in the form of guidance material, including any relevant limitations or information.

(5) An explanation of significant or unusual flight or ground handling characteristics of the airplane.

[Amdt. 25–42, 43 FR 2324, Jan. 16, 1978, as amended by Amdt. 25–72, 55 FR 29787, July 20, 1990]